

Enabling the Fully Wireless Internet

Title: TV Whitespace progress

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- Spectrum Bridge continues to work with industry members and plans a number of new technology trials in 2011
 - Our objective is to help secure the widespread adoption of TVWS
- We have completed, as far as possible, updates to our database to be compliant with 2010 rules
 - Pursuant to resolution of outstanding questions we are ready to begin certification of a TVWS solution

Today's Agenda



- Today we hope to accomplish several things:
 - Identify the outstanding questions and our view on their complexity
 - Show how we test our solutions as examples of how to certify TVWS solutions
 - Offer our help – to be the Guinea Pigs
 - Offer a solution for evaluation and education
 - Work with you on defining the certification
 - Involve others and publish our results

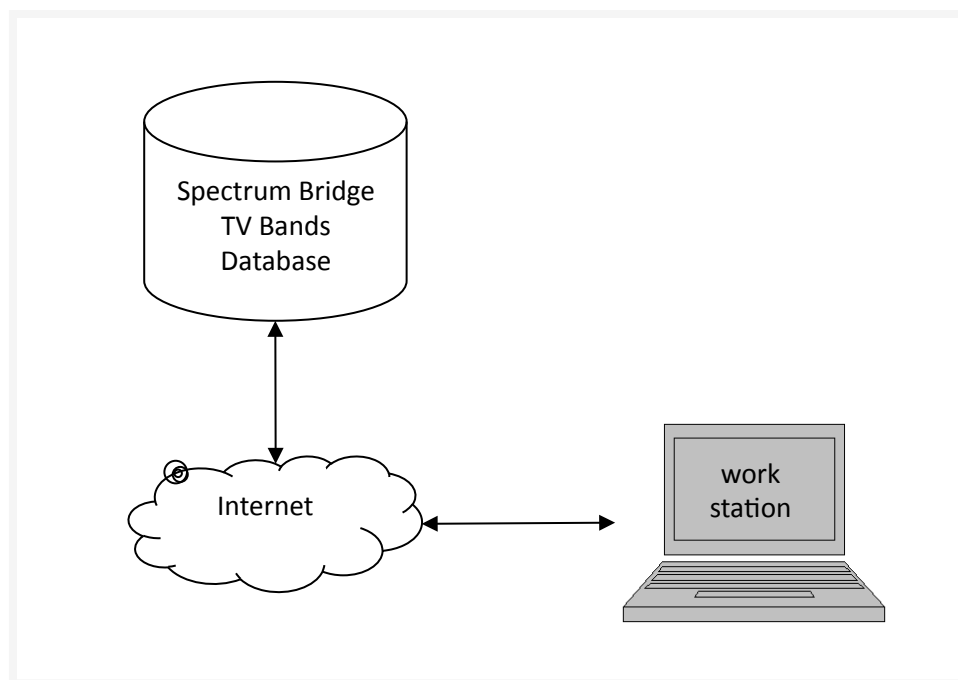
- Database selection criteria - verify/clarify criteria for selecting incumbent entries from the FCC CDBS and ULS databases for inclusion in the TVWS database
- Mechanism to validate contour generation - we need a reference contour to validate against, including a named TV station in the FCC CDBS database to retrieve the required parameters, and a reference set of the 360 lat/long points to compare our calculated lat/long pairs against
- Our results will be affected by the terrain data we utilize, the specifics of how we calculate height above average terrain, and the R-6602 algorithm we use

- Testing of our TVWS solutions have allowed us to develop a set of tests that validate compliance with the rules
- We are willing to offer our test plan as a starting point for FCC certification
- We see testing broken down into 3 distinct phases
 - Database, radio, system
- We believe that Certification can be a comprehensive yet simple process
- Should the FCC desire to do any field testing in these early days we can offer multiple locations already running experimental networks

Topics for discussion

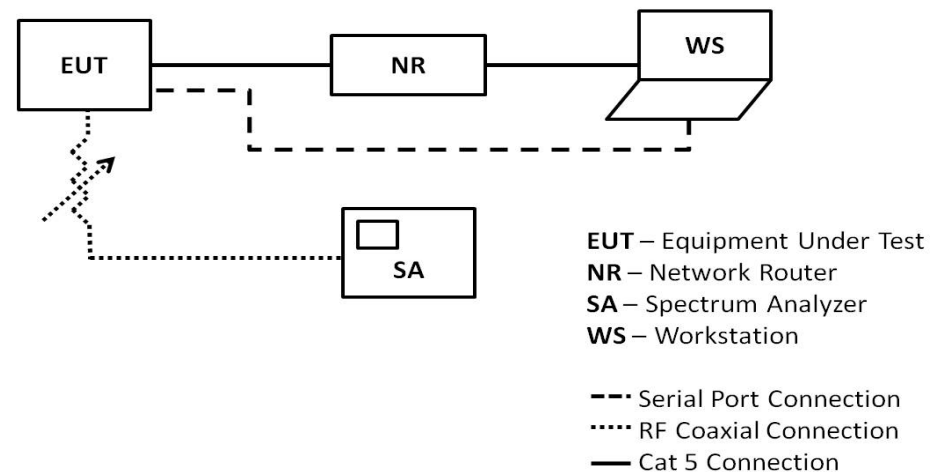
- Database certification
- TVBD Fixed Device Part 15 certification tests
- TVBD/Database interoperability certification tests

Database Testing Configuration



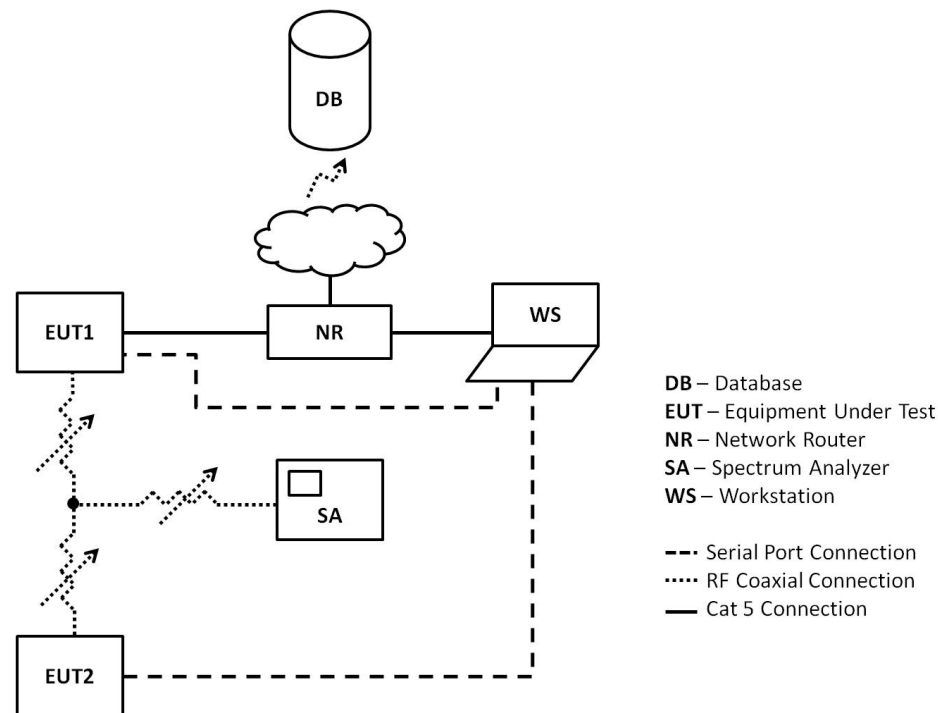
Fixed TVBD Test Setup

TVBD Testing Configuration



Fixed TVBD/WSDB Bench Test Setup

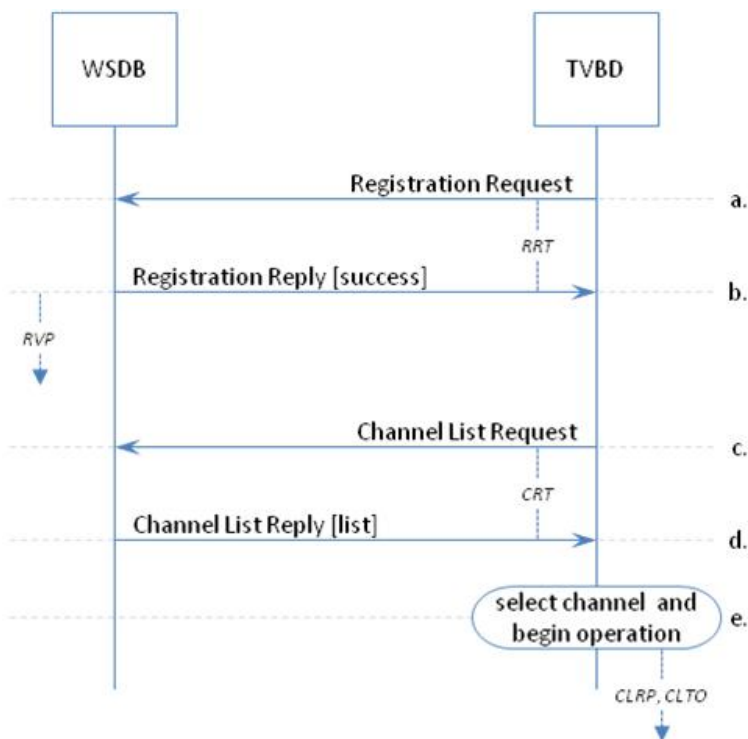
TVBD / TV White Spaces Database System Testing Configuration



TVBD/WSDB Interoperability Certification



WSBD/TVBD message flow validation



- Device Command Line Interface (CLI)
- Device Element Manager
- Ethernet packet capture tools
- Internet browser